CASE STUDY PPP FOR CITIES

SANTS FOOD MARKET (BARCELONA)

Jordi Salvador Joan Enric Ricart Francesc Trillas Miquel Rodríguez Planas

With the collaboration of the Ajuntament de Barcelona

June 2020



PPP for CITIES Specialist Centre on PPP in Smart and Sustainable Cities



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The Specialist Center on PPPs in Smart and Sustainable Cities (PPP for Cities) is a research, innovation and advisory center whose purpose is to provide government agencies around the world with support in the organization, management and development of collaborative projects between the public and private sectors, in the field of smart cities.

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Highlights

The food market Mercat de Sants was opened in 1913 in the Sants neighborhood of Barcelona inside an art-nouveau-style (or modernist) building to accommodate the ongoing outdoor food market existing at that time.

In 2009, after decades of intense use and poor maintenance of the building, the Barcelona Municipal Market Institute (IMMB), the organization responsible for the direct administration of Barcelona's municipal markets, announced the renovation of the building and indoor facilities. The purpose of the refurbishment was to adapt the market to the new services demanded by its users: new and bigger stalls with more product variety, air conditioning, bigger aisles, customer parking, a workshop for stallholders and improved storage.

The project also included the refurbishment of the building facade, of great cultural interest and a symbol of the Sants neighborhood.

The project was structured as a public-private partnership (PPP), in which a private supermarket ¹ chain partially funded the refurbishment of the infrastructure by paying stall opening rights to the IMMB, the owner of the market facilities. In exchange for the payments plus monthly rental fees, the supermarket company would be able to operate a stall inside the market facilities for up to 50 years. The supermarket chain would benefit from the food market attractiveness to customers, modern facilities and high visitor turnover. Additionally, the supermarket's location inside the food market would help attract more customers to the food market itself.

During the operation of the project, the payment of maintenance fees by the supermarket chain and stallholders to the IMMB will help reduce public sector payments for market cleaning and security services.

Food markets are considered a critical infrastructure to develop neighborhood communities, decentralize city activities, improve local economies and promote social cohesion. For these reasons, the renewal of the Sants food market was a central part of the IMMB's strategy to promote neighborhood social life.

Location: Sants neighborhood, Sants-Montjuïc district, Barcelona, Spain

 $^{^{\}rm 1}$ Supermarkets sell perishable and non-perishable products.

Characteristics of the PPP Contract

Type of project: Brownfield²

Size: Market sales area: 2,583 m²; 36 food stalls; 14 clothing stalls; 90 parking spaces

Supermarket: 2,350 m² (sales area and storage in level-1)

Market refurbishment cost: €9.8 million

Delivery mode: PPP model in which the private partner (supermarket chain) partly funded the refurbishment of the food market building and facilities by paying an opening rights fee

Annual market operation cost:³ €245,894 (2017)

Awarding price for supermarket opening rights: €3 million (starting tender price: €2.2 million)

Supermarket rent contract duration: maximum 50 years

Project study publication: 2006

Construction start: November 29, 2009

Supermarket opening rights tender announcement: April 15, 2013

Supermarket opening rights contract award: July 22, 2013

Start of operation: May 14, 2014

Construction finished: May 18, 2014 (initially construction was supposed to finish in September 2011⁴)

but technical difficulties with the old columns delayed works.

Payment method: Supermarket opening licenses fee (awarded by auction), monthly rental fees (per

square meter), and maintenance fees (cleaning services and security)

Contracting authorities: the IMMB

Bid-winning Companies

Supermarket operation and management: Mercadona

Design of the market space: Josep Llobet i Bach, Pb2 Projecte

Refurbishment of the market:

Phase 1: Sacyr (underground parking)

Phase 2: Dragados temporary business association (unión temporal de empresas [UTE])

(Mercat de Sants building)

Phase 3: Comsa SAU (roof, drainage, facade, stalls, etc.)

² The project consisted of the refurbishment of an already existing building and construction of new indoor facilities.

³ This amount includes cleaning services and security only. Source: Associació Comerciants de Sants

⁴ Mercats de Barcelona (2018).



1. Project Background

This section provides the background of the Sants neighborhood and the origin of the food market. Sants was, until 1897, a municipality independent from Barcelona. This is the main reason that the neighborhood has maintained a strong feeling of identity among its residents. This section will also look at the origins of the current food market and the central role that food markets have historically played as source of local economic development in cities.

1.1 Location and Population

The city of Barcelona is divided into 10 districts and 73 neighborhoods.

The district of Sants-Montjuïc, with a population of 181,910 inhabitants (11.2% of Barcelona city's population⁵), is divided into eight different neighborhoods and an additional special area, which includes the Zona Franca and the Port of Barcelona. Sants is the biggest of the district's eight neighborhoods in terms of population, with 41,127 inhabitants (2.5% of the city's population).

Among Barcelona residents, Sants is known as a lively area in terms of commercial and cultural activity. One of the city's first business improvement districts (BIDs)⁶ was located in Sants (in the streets Carrer de Sants and Creu Coberta). These BID areas consist of public areas that receive private investment (private provision of public goods, such as public benches, pedestrian areas, etc.) in order to attract customers and promote commercial activity in the area.

1.2 History of the Sants Neighborhood

Sants was a municipality located near the old city of Barcelona with a large textile industry. Vapor Vell stood out as the first big textile factory in the municipality. The factory started production in 1846 and continued until 1977, when a department stall opened in its place. Currently, the building accommodates a public library and a school.

The location of several industries in the municipality fostered Sants' economic takeoff and increased its population during the first half of the 19th century. Sants also attracted farmers from the surrounding areas who came to sell their agricultural products to the industrial workers living there. Additionally, commercial stalls trying to avoid Barcelona city's high taxes also found Sants to be a good location for their businesses.

Due to this industrial growth and the work seekers it attracted, Sants' population multiplied by five between 1850 and 1897 to reach 25,000.

On April 20, 1897, Sants municipality, together with others around the city, was aggregated to Barcelona. With these aggregations, Barcelona trebled its population, from 175,000 inhabitants in the mid-19th century to 537,000 in the year 1900, and increased its area from 12 km^2 (mainly in the Ciutat Vella and Eixample districts) to its current 102.2 km^2 .

1.3 The Role of Food Markets in City Development

Historically, food markets have been the "driving force behind the configuration of European cities since medieval times," and Barcelona and the neighborhood of Sants are no exception.

Originally food markets were located in open spaces (mainly squares), where farmers could sell products grown on the outskirts of the city. This attracted shoppers and visitors, increasing the

⁵ Barcelona had 1,620,809 inhabitants in 2017.

⁶ A BID is an area in which private stall owners invest in the refurbishment of public spaces through an additional tax (or levy) in order to improve customers' shopping experience.

⁷ Nadia Fava, Manuel Guàrdia, and José Luis Oyón, "Public Versus Private: Barcelona's market system, 1868–1975," Planning Perspectives 25 no. 1 (January 2010): 5–27.

commercial attractiveness of the area. However, this sometimes provoked social conflicts among neighbors due to the congestion, noise and garbage caused by the congregation of people. Additionally, the sale of fresh produce was often carried out in unsanitary conditions. The lack of public spaces and scarce city council funds meant that large-scale construction of indoor markets did not begin until the 20th century.

As cities grew and tax revenues increased, the public sector took a more active role in the provision of public services. In the case of Spain at the end of the 18th century, in order to improve the services offered to residents, municipalities started constructing facilities such as hospitals, public schools, prisons, police stations, museums, etc. and transformed cities by increasing public infrastructure. This included the construction and promotion of markets to help control the quality and sanitary conditions of food products. By building indoor markets, the municipalities could also improve product taxation. The establishment of indoor markets enabled rules related to the sale of products to be set: opening hours, hygiene, control of weights and measures, stall concession systems, and sales licenses.

The public infrastructure construction process was accelerated in Spain in 1836 with the introduction of disentailment laws relating to ecclesiastical properties in urban areas. The so-called service city was born in Spain.

1.4 Expansion of Food Markets in Barcelona

During the 19th century, 12 markets were inaugurated in Barcelona in order to solve the problems deriving from the existing crowded outdoor markets. These public markets played a critical role in modern urban planning in the 19th century, as they attracted multiple businesses related to the market activity. This led to stalls opening in the surrounding areas, creating a strong feeling of community.

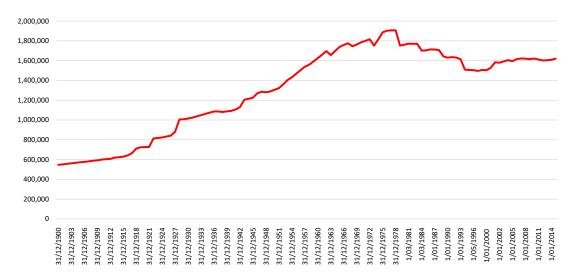
The general expansion of the food markets in Barcelona, however, took place during the second half of the 20th century—much later than in other European cities—following the liberalization of the Spanish economy from the early 1950s⁸.

Afterwards, the bold reforms adopted by the Spanish government to stabilize and liberalize the Spanish economy in 1959 led to strong economic growth, particularly in certain areas of Spain—Barcelona being one of the most prominent. This attracted a large number of people from other regions of Spain, who settled in the outskirts of Barcelona—sometimes even in informal settlements. Figure 1 shows the population in Barcelona between 1900 and 2015.

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⁸ After the Spanish Civil War (1936–1939), the Spanish economy started a period of economic autarky that limited economic recovery after the war. The autarky officially lasted until 1959. However, some measures to liberalize the economy had already been passed at the beginning of the 1950s

Figure 1. Barcelona's Population, 1900-2015



Source: "Població de la ciutat. 1900-2017" Instituto Nacional de Estadística. Censos, Padrons i Rectificacions padronals, accessed April 2019, https://www.bcn.cat/estadistica/catala/dades/anuari/cap02/C020101.htm

The idea that all Barcelona citizens should have a food market at a distance of less than 1 km from their home led to an intense activity of market construction in the city. Between 1957 and 1977, 18 neighborhood markets were built by the city council in the areas with least services. If one takes a wider period, 26 new markets were constructed between 1939 and 1977.

Originally, public authorities focused their attention on the quality of the products sold in the markets. Later on, municipalities widened their scope of interest to how they could promote the markets, also focusing on issues related to nutrition, ways of food consumption, and fostering more competitive prices. See **Exhibit 1** for a list of all Barcelona's food markets.

The development of the food market system owned by the Barcelona City Council¹⁰ has been, up to the present day, mainly financed by the revenues obtained from the leases paid by the stallholders and other operators, such as supermarkets, restaurants, etc. These payments represent 86% of the IMMB's annual budget of around €18 million, which includes the cost of its staff (72 people), its operation, regular maintenance and small, tangible improvements.

⁹Administrative Municipal Archives of Barcelona, Municipal Acts-Plenary, July 26, 1955, fol. 120v, and Municipal Acts-Plenary, April 28, 1956, fol. 54: "We currently have 24 market halls ... and in relation to Barcelona's one and a half million inhabitants they are insufficient to attend to the population since the proportion is of less than one market per 50,000 inhabitants, whereas a healthy supply policy advises the allotting of a maximum of 20,000 inhabitants to each market. For diverse circumstances ... the supply system in our city cannot be compared to other systems of large European and American cities. For this reason, considering the difficulties which would be entailed by the construction of the large number of market halls required by the public, this insufficiency should be solved by means of private markets, that is to say, by providing access and channels to private initiative as an element of collaboration in the municipal activity." Except Abacería market in Gracia, which opened as private market in 1892 under the name of Isabel and was later transferred to the public sector.

¹⁰ Except Abacería market in Gracia, which opened as private market in 1892 under the name of Isabel and was later transferred to the



2. Sants Market (Mercat de Sants)

2.1 The Origins of the Sants Market

The current Sants food market's origins can be found in the open market that existed in the old Plaça d'Osca around 1876, where farmers from the outskirts of Sants went to sell their products. The market grew as the municipality of Sants attracted more industries and more workers.

Later on, the market was moved to a site bought by the city council known as Hort Nou (new garden in Catalan). The name of this site led to the market being popularly known as Mercat Nou (new market). A few years later, this name would be used to name the metro station located in the area where the market used to be. The new market's aim was to reduce problems for local neighbors deriving from the accumulation of garbage and the congregation of people.

The building work for the current market facilities started in 1892. The new infrastructure was the answer to neighbors' demands for better and bigger facilities. The building was designed in the art nouveau style (modernism) by the architect Pere Falqués i Urpí. ¹¹ The market consisted of an exposed brick building composed of three sections. Each part of the facade consisted of a pyramid structure, crowned with a series of decorative pillars.

The Sants food market was inaugurated on May 5, 1913. According to the newspapers of that time, the market surface area was 3,397.89 m2. The market had 363 stalls: fruit and vegetables (164), meat (41), fish (42), chicken, quail and rabbit (28), food and drinks (4), canned goods (8), dry fish (7), offal (13), seafood (10), eggs (12), pork (20), processed food (11) and bread (3).

2.2 The Market Renovation Project

In 2009, after decades of intense use and poor maintenance, the IMMB, the owner and entity responsible for the direct administration of Barcelona's municipal markets, decided to start the renovation of the old Sants food market.

The remodeling targeted the building and indoor equipment, to adapt it to the new services demanded by both the market stallholders and the clients. The project included the following tasks:

- · Refurbishing the building structure and facade
- · Reducing the number of stalls, while increasing each stall size
- Improving infrastructure (electricity and water systems, windows and the garbage system)
- Installing air conditioning and cold rooms
- Widening market aisles to make it easier for customers to walk around
- Creating new storage facilities and workshops for stallholders in level-1
- Renewing the garbage collection facilities
- Constructing a car lot in level-2 for users

The project also included the remodeling of the facade, not only to improve building safety but also to maintain the city's architectural assets.

¹¹A press release by Barcelona City Council attributes the design of the building to the abovementioned architect and Antoni de Falguera i Sivilla. Les obres del Mercat de Sants s'acosten al final", Ajuntament de Barcelona, accessed April 2019, https://www.barcelona.cat/barcelonablog/ajuntament/les-obres-del-mercat-de-sants-s%E2%80%99acosten-al-final

The main goal of the refurbishment was to adapt the market facilities to society's new consumption patterns. In order to achieve this goal, from the end of the 1990s the IMMB adopted an innovative strategy consisting of opening a supermarket premises inside the food market facilities. The opening of the supermarket would:

- Attract new customers to the food market's facilities (the supermarket's users). While a supermarket also sells fresh products, which are substitutes for those sold in the food markets, the majority of a supermarket's business is based on products that are complementary (non-perishable goods) to fresh produce.
- Partially pay for the market refurbishment through the payment of opening rights fees by the supermarket firm (€3 million out of the total cost of €9.8 million).
- Reduce cleaning and security fees for market stallholders.

The construction work took around 3.5 years more than initially expected, ¹² due to technical difficulties deriving from the necessity to sustain the building columns while digging to construct the underground parking floors.

In addition to the new market facilities, the city council, in a separate project, decided to create an area with pedestrian priority around the market (covering an area of 4,232 m²).¹³ This area would increase the attractiveness of the area for users, therefore promoting economic activity and fostering social cohesion in the neighborhood.

2.3 Sants Food Market Facilities and Visitors

In 2008, before the refurbishment started, the market had 91 food stalls. The estimations were that around 65%-70% of the food stalls would stay in the renovated market. However, some stallholders decided not to continue once the renovations and the move to the temporary market started (see **Figure 2**).

The significant drop in the number of stallholders in 2009, when renovation started and stallholders moved to temporary facilities, was balanced by an increase in the number of square meters per stall. Therefore, in the renovated market there were fewer stalls but each had a larger surface area to accommodate more product variety, which helped them to compete with other retailers.

Since 2014, there have been 36 indoor food stalls and 14 outdoor stalls (selling clothing and kitchen utensils). Additionally, the new market has one supermarket and 100 parking spaces.

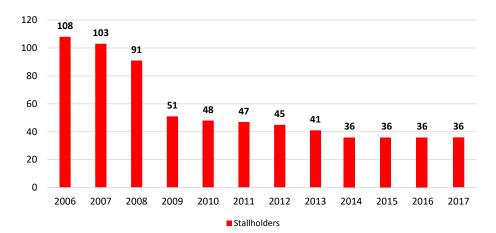


Figure 2. Sants Food Market Stallholders (Food Products Only)

Source: Information provided by IMMB.

¹² At earlier stages of the project before the final design was completed.

 $^{^{13}}$ The project cost was estimated at €1.15 million.

While there is no data for the years between 2011 and 2014, the number of market visitors increased by 23% from 2015 (2,516,718 visitors) to 2018 (3,087,373 visitors) (see **Figure 3**).

3,500,000 2,500,000 2,000,000 1,500,000 500,000

2013

Visitors

Figure 3. Number of Visitors to Sants Food market

Source: Information provided by IMMB.

2010

2011

Nota 1: There is no data for 2011, 2012, 2013 and 2014, according to the IMMB.

Nota 2: Data from 2015 onwards also includes visitors to the supermarket.

2012

2.4 Tender Process for Supermarket Opening Rights

2014

2015

2016

2017

2018

The IMMB started a tender to find a supermarket chain interested in opening a stall inside the Sants food market facilities. The supermarket, in addition to paying for the opening rights, monthly rental fees and maintenance costs, could attract new customers to the market.¹⁴

The opening rights minimum tender price was fixed at €2.2 million. The awarded company would pay 5% of the price within one month of being awarded the opening rights and submit a guarantee for 95% of the remaining amount.

To participate in the tender, companies had to provide a guarantee of 3% of the minimum tender price: €66,000.

The bidders submitted three envelopes with the following information:

- Envelope 1: administrative information, such as company tax ID number, financial situation, annual revenues, guarantee certificate
- Envelope 2A: documents with the supermarket service proposal
- Envelope 2B: improvement of the initial economic conditions, economic bid and duration of the contract

The criteria to award the project followed subjective criteria for envelope 2A:

- Commercial proposal: up to 50 points
- Home delivery project: up to 15 points (maximum points for joint delivery with market products)

¹⁴ Complementarity exists between the market customers (buying fresh products: meat, fish, vegetables, etc.) and supermarket clients (buying mainly non-perishable products).

The criteria to award the project followed automatic/objective criteria for envelope 2B:

- Improvement of the initial economic offer: up to 60 points
- Reduction in the authorization of space use to shorten the duration or length of the contract: up to 10 points

There were a total of 135 possible points.

The bidding companies are shown in **Table 1**.

The contract was awarded on July 22, 2013, to the supermarket company Mercadona for €3 million, the best economic offer.

The awarded firm had to pay €427.72 for the expenses deriving from the public tender announcement.

Table 1. Bidders' Economic Proposals

Bidder	Amount
Mercadona	€3 million
Bon Preu SAU	€2.25 million

Source: Provided by IMMB.

Once awarded the contract and the space, the concessionaire had to start supermarket operation within four months otherwise it would be fined €601.01 per day.

The activity of the supermarket would be carried out under total risk transfer to the supermarket firm.

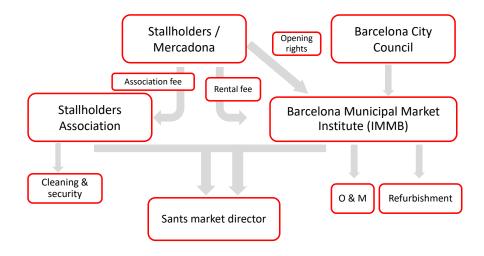
2.5 Project Structure

The project was structured as a PPP in which the public sector (the IMMB), the owner of the facilities, partially paid for the refurbishment of the building and monitored the market service to ensure the approved quality standards were met. The private sector—the supermarket chain—paid the stall opening rights that partially funded the building renewal (see **Figure 4**).

Additionally, the supermarket chain and the stallholders paid monthly rental fees and operation and maintenance (O&M) expenditure (opex) for services such as cleaning and security.

The management of the market was led by the IMMB, which appointed a market manager (market director). This PPP model of management is one of the characteristics of Barcelona's markets. ¹⁵

Figure 4. Project Structure



Source: Prepared by the authors.

¹⁵ "Pla Estratègic Mercats De Barcelona 2015-2025. Mercats De Barcelona." Ajuntament de Barcelona. Accessed March 19, 2020. https://ajuntament.barcelona.cat/mercats/sites/default/files/Llibre%20Pla%20Estrategic%20ok.pdf

2.6 Agents Involved in the Project

The main agents involved in the project are listed below.

2.6.1 The Barcelona Municipal Markets Institute

The Barcelona Municipal Markets Institute (IMMB in Catalan), an autonomous body of the Barcelona City Council, was set up in 1991 to foster the activity of Barcelona's markets. The main goal was to attract more users to the markets and encourage social life in Barcelona's neighborhoods. The IMMB's governing board is made up of representatives of the market traders, the political parties and the local authority.

The IMMB's main tasks are the:

- Management of Barcelona's markets
- Improvement of market infrastructure and services
- · Update of the range of commercial products offered
- Creation of market promotion policies

The IMMB's market modernizing activity is focused on:

- Improving the market services
- · Maintaining the share of consumption in markets
- Managing diversity and unifying commercial regulations

According to the IMMB Strategic Plan for Markets 2015–2025 (IMMB, 2014), the objective of the IMMB is to renovate and modernize city markets to meet citizens' needs and to place markets in the center of Barcelona neighborhoods' social life.

Since the founding of the institute, the IMMB has refurbished or started refurbishment in 23 of the existing 39 food markets in Barcelona. The latest market in Barcelona to be remodeled¹⁶ was the Mercat de Sant Antoni, a steel-structure market constructed in the 19th century that, with 146 years of history, is one of the biggest and most emblematic markets in Barcelona.

As part of its assignment, the IMMB has also promoted new services to attract more visitors:

- Home delivery of products (available in Sants since December 6, 2006)
- Availability of automated teller machines (ATMs)
- Free parking for customers
- Workshops in the market facilities

IMMB operation revenues in 2018 reached €8,015,734, coming from stallholders' payments (mainly from rental fees), auctions and awards, and garbage collection fees (see **Table 2**).¹⁷

Table 2. IMMB Revenue by Source

	2018
Auctions and awards	10%
Transfers from central markets	0%
Garbage collection fees	10%
Fees	64%
Cold rooms	7%
Other transfers	9%
Total	100%

Source: Provided by IMMB.

¹⁶The market has been remodeled at a cost of €80 million.

¹⁷ Institut Municipal de Mercats de Barcelona, Pressupost 2018. Mercats de Barcelona, [Budgets 2018 Barcelona Markets], Aiuntament de Barcelona, 2018.

http://pressupostosmunicipals.transparencia catalunya.cat/places/barcelona/institut-municipal-de-mercats-de-barcelona/2015.

Figure 5 shows how the percentage of revenue coming from auctions and awards increased from 2013, when compared with previous years.

Operation of the IMMB cost Barcelona City Council €2.2 million in 2018 (0.1% of Barcelona City Council's current expenditure and 0.7% of the transfers to autonomous institutes).

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Auctions and awards ■ Transfers from central markets ■ Garbage collection fees Fees Other transfers Cold rooms

Figure 5. IMMB Revenues by Source

Source: Provided by IMMB (2018).

2.6.2 Stallholders

The core market activity is carried out by food stallholders that rent indoor spaces in the market to sell their food products: fish, meat, vegetables, eggs, clothing, etc.

Stallholders pay a permit/authorization fee and rent for the facilities, which include the stall, storage (where they can keep their products in adequate conditions), and sometimes a workshop for product preparation. The activity is carried out at stallholders' own financial risk. Each stallholder also pays for the:

- Collection, transportation and elimination of garbage
- Market cleaning and security services (paid through the Stallholders' Association)
- Water, gas and electricity consumption

2.6.2.1 Stallholders' Association

The Sants Market Stallholders' Association, of which membership is compulsory for the market stallholders, represents the stallholders' interests when dealing with the market management (appointed by the IMMB). The association takes part in the strategic decisions of the market management.

The tasks of the association defined in the municipality regulations are the following:

- · Cleaning services in the interior of the market
- Security
- Participation in the market promotion strategy

The association is also in charge of setting opening times and defining shoppers' rights, according to the agreement reached on the framework of the refurbishment of Sants food market between the two parties, signed on December 24, 2008.

The Sants Market Stallholders' Association approved the remodeling of the market's facilities on March 5, 2008, with the acceptance of 94% of its members.

Barcelona markets' stallholders' associations are represented in the IMMB's Board of Directors, in order to participate in strategic decisions of the institute.

In 2017 the budget of the Sants Food Market Retailers' Association (Associació de Comerciants de Sants) was €245,894. The origin of these funds was the fees paid by stallholders and, additionally the funds paid by the supermarket.

2.6.3 Supermarket Concessionaire

The contract to operate the supermarket was awarded to Mercadona, a family-owned and family-run supermarket chain, founded in 1977 by the Cárnicas Roig Group.

Mercadona is currently Spain's market leader in the supermarket segment, with a strategy focused on promoting products under their own brand with highly competitive prices. Currently it has 1,629 stores throughout Spain and two in Portugal, and 84,000 employees. The supermarket chain has 24.1% of the market share, with sales of €22,915 million.

By being awarded the contract at Sants market, the firm obtained the right to use 2,350 m² in two levels (commercial space and storage) for a period of up to 50 years.

2.7 Operation

The market management is the joint responsibility of the IMMB and the Stallholders' Association. It uses a public-private management approach to take the strategic decisions that affect the functioning of the market.

The IMMB monitors each market activity by appointing a market director together with the Stallholders' Association. The director is responsible for the following:

- Planning the market strategy
- Administrative procedures: license for works, work permits, etc.
- Monitoring the correct application of regulations (cleanliness of stalls, etc.)
- Monitoring the fulfillment of stallholders' rights and duties (actions should be carried out according to IMMB principles)
- Inspections and health control
- Improvement of the building
- · New promotional activities
- · Managing daily operations: cleaning and security

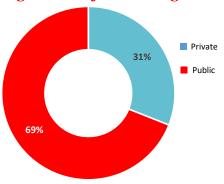
The main goals of these actions are to:

- Provide a good service to residents
- Improve the competitiveness of the markets in relation to other forms of retail
- Position the market as a center of social life in the neighborhood

2.8 Funding of the Project

The remodeling of the Sants food market was financed using a PPP framework in which the public sector paid 69% (€6.8 million) of the total remodeling cost (€9.8 million), with funds from the municipality budget and the private sector paying 31% of the cost (€3 million) through an acquisition of opening rights inside the market—awarded via a tender process (see **Figure 6**).

Figure 6. Project Funding



Source: Prepared by the authors

2.9 Payments by the Private Sector

2.9.1 Stallholder Payments

The stallholders pay a permit fee and monthly rent to the IMMB according to the size in square meters of the stall, market category and type of product they sell.

Barcelona's food markets are divided into three categories:

• 1st category: 27 markets

• 2nd category: 8 markets

• 3rd category: 4 markets

The first two categories include the best-located markets and those that have been remodeled, ¹⁸ while the third includes those markets that are further away from the city center and/or not recently refurbished. Sants market is included in the first category.

The stalls are divided into A and B stalls. A stalls are those that sell food and beverages, dry fish, fish, seafood, meat, pork meat, frozen food, chicken, bread, etc. B stalls are those that sell offal, eggs, vegetables, fruit, olives, cereals, etc.

Stallholders have to pay a permit or authorization fee to open a new stall (see **Table 3**).

Table 3. Minimum Opening Cost for Each Stall Permit/Authorization (€)

	Market category						
Type of products	1 st	2 nd					
Α	2,345.45	1,793.60					
В	1,453.28	1,168.14					
Outdoor	1,379.67	1,103.43					

Source: IMMB (2018).

Note: Ajuntament de Barcelona. Ordenança fiscal núm. 3.6. Taxes de mercats. Any 2016.

 $^{^{\}mbox{\tiny 18}}\mbox{The remodeling of the market can lead to the upgrading of category.}$

In cases where there are several bidders for the same stall, stalls can be auctioned among bidders. In whatever case, the final price must not be lower than that listed in **Table 4.**

Table 4. Monthly Rental Cost of Stalls per Square Meter (€)

Space (m²)	1st A	1st B	2nd A	2nd B	3rd B
< 2.59	25.6	19.03	19.03	15.93	14.47
2.6-5.09	36.52	27.13	27.13	22.78	20.71
5.1–10.09	63.82	36.55	53.43	27.13	24.74
10.1–15	95.185	54.91	79.34	40.79	37.11
15.01–25	124.50	71.24	105.56	53.04	48.20
25.01–40	166.06	94.94	138.31	71.24	65.04
40.01–60	207.55	118.67	172.93	89.26	79.70
60.01–100	257.22	138.50	212.65	106.35	97.69
>100	281.96	144.70	236.21	112.54	103.87

Source: IMMB (2018).

Note: Stalls can be formed by several commercial spaces.

While the market goes through the remodeling process, no rental payments are made to the IMMB.

The prices are updated annually, in accordance with the consumer price index (CPI) published by the Spanish Ministry of Economy.

In the case of restaurants inside market, the price is €4.72/m²/month.

2.9.2 Supermarket Payments

Besides the amount bid for the opening rights, these are the monthly fees of the facilities for supermarkets opened after 2013:

- Commercial space: $\leq 5.25/\text{m}^2/\text{month}^{19}$ (total Mercadona: 1,448.8 x 5.25 = $\leq 7,606.2$)
- Storage: €141.07/month for spaces over 100 m²
- Holder of the right to sell in the space (to cover general expenses, such as parking and cleaning services): €2.85/m²/month

Additionally, the company has to pay a garbage collection fee of €111.82/month.

The supermarket also has to pay the Stallholders' Association fees, which pay the costs related to market maintenance.

 $^{^{\}rm 19}$ Subject to yearly increases approved by Barcelona City Council.

2.10 Risk Transfer

PPP theory states that an adequate distribution of risk is one of the crucial elements to ensure project success. Traditionally, the academic literature²⁰ has argued that the risk should only be transferred to the private party if it is the party that can manage it best and at the lowest cost.

However, the optimal transfer of risk in PPP contracts requires a prior evaluation of each party's incentives—often monetary—to carry out the tasks assigned in the contract.

Table 5 shows the risk transfer of Sants food market.

Table 5. Risk Transfer

Risk category	Allocation
Land and space	ІММВ
Design	IMMB
Construction	IMMB
Financing	IMMB and Mercadona and the Stallholders
O&M	IMMB and the Stallholders' Association
Inflation	Stallholders and IMMB
Demand I (stalls)	ІММВ
Demand II (customers)	Stallholders
Political	Stallholders

Source: Provided by IMMB.

Land and space risk: The IMMB is the sole owner of the land and the building where the food market is located and is therefore responsible for both.

Design risk: The design risk of the new market was borne by the IMMB, the owner of the building. The IMMB outsourced the design to a specialized private architectural firm, which designed the new market based on stallholders' needs.

Construction risk: The construction risk was borne by the IMMB, which outsourced the task to several construction firms, therefore partially transferring the construction risk to these firms.

Operation and management: The O&M risk is shared between the public and private sector. The IMMB is responsible for the adequate functioning of the market and the maintenance of the facilities (air conditioning, parking, etc.), while the Stallholders' Association is in charge of daily operations (cleaning services and security).

Financing risk: The IMMB received the €9.8 million needed to remodel the market from the city budget. The IMMB partly financed this amount with a lump sum from the private supermarket chain paying for the opening rights, and stallholder owners that paid 1.495€ per sqm.

Inflation risk: The rental fees are updated yearly in accordance with the Spanish national CPI. Historically, the prices in Barcelona province have been slightly higher than the average in Spain (see **Figure 7**). For that reason, the city council partially bears the inflation risk.

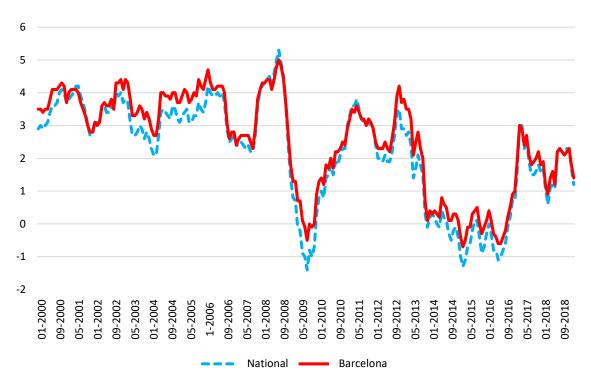
Demand risk I (stalls): The IMMB bears the risk of a low demand for the rental spaces (stalls). A necessary condition to reach the goal of fostering local economies is to use the market's new facilities at full capacity in order to make the market attractive to customers. If the project does not reach its goal of renting the whole space, it can result in a political burden for the inadequate use of public funds to remodel the building.

Demand risk II (customer): The stallholders bear the risk of final customer demand. The risk of having revenues below the break-even point may lead them to suffer losses. Stallholders have to pay for opening rights, stall refurbishment and lighting design (between €30,000 and €80,000), rental fees (around €1,500) and operation costs.

Political risk: The political risk is borne by the stallholders, as they risk a change of market strategy by a newly appointed government in Barcelona City Council.

²⁰ Contract theory, which studies how economic agents handle contractual arrangements—normally with asymmetries in the available information—states that the risk must be allocated to the party best able to control its origin or to whomever can best manage the risk in case of high aversion (Engel, Fischer and Galetovic 2014).

Figure 7. CPI in Barcelona Province and Spain (% year-over-year [YOY])



Source: Ajuntament de Barcelona (2016)

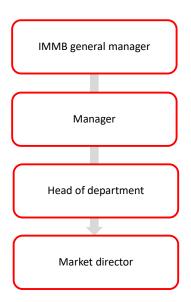
2.11 Governance

In this contract, as in any other contract involving different actors with potentially different priorities, governance is one of the keys to the project's success. Throughout the life of the project, unexpected situations may arise that force the parties to reach agreements on matters that were not initially considered. For this reason, contracts are considered incomplete, especially the longer the duration (Grossman and Hart 1986).²¹ Having good governance mechanisms will ensure that the project progresses adequately over time. The institutional organization of the project is crucial to guarantee good contractual choices and good contract enforcement and monitoring.

This section is devoted to evaluating the mechanisms established in the contract, to govern the contract and avoid opportunistic behavior by any of the parties, either the IMMB or the stallholders / supermarket chain.

An adequate governance structure should provide channels for fluent communication between the parties (see **Figure 8**). In this case, the IMMB general manager holds at least a yearly meeting with the Stallholders' Association to discuss topics of interest to the stallholders and learn about new initiatives developed by markets.

Figure 8. IMMB Organizational Chart



Source: Prepared by the authors.

²¹ S.J. Grossman, and O.D. Hart, "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *Journal of Political Economy* 94 No.4, (August 1986): 691–719; O.D. Hart, and J. Moore, "Property Rights and the Nature of the Firm," *Journal of Political Economy* 98, No. 8 (December 1990): 1119–1158.

The market manager, appointed by the IMMB, develops a central role in the governance of the project by monitoring the achievements set tby the municipal act-plenary and dealing with the market's stallholders' association.

Regarding the regulation compliance, in the case that the stallholders do not comply with the standards established in the contract, they will be fined by the person in the city council responsible for the municipality's markets on behalf of the mayor.

2.12. Barcelona Markets

According to Barcelona City Council, the mission of the markets is to provide residents not only with quality food products and good service but to play a more active role in the city life. Such a role includes fostering a healthy lifestyle, promoting a healthy and balanced diet, increasing good nutritional habits, fostering social cohesion and structuring neighborhood life, while increasing employment and economic growth in local stalls.

The mission of the markets is therefore directly linked to the development of the Barcelona city model by promoting local economies. To reach this goal, markets should:

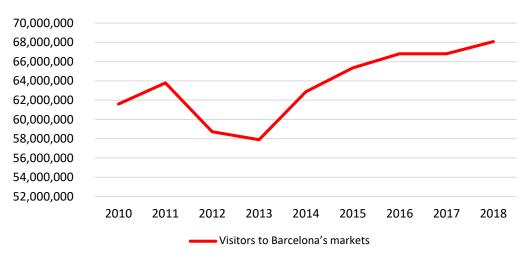
- · Provide residents with high-quality products, excellent customer service and product variety
- Promote a healthy lifestyle
- Promote social cohesion
- Promote Neighborhood cohesion
- Foster the local economy and jobs

The city of Barcelona has 39 food markets and four non-food markets with:²²

- 68 million visitors per year (2018)
- An annual turnover of €950 million
- 7,500 employees

The number of visitors to Barcelona's markets has vastly increased since 2013, as shown in **Figure 9**. However, there is no information about the percentage of the total number of visitors who went exclusively to the supermarkets installed inside market facilities.

Figure 9. Visitors to Barcelona's Markets



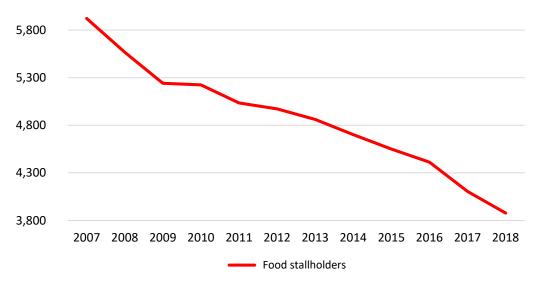
Source: Provided by IMMB.

²² "Mercats: L'experiència De Barcelona | Mercats De Barcelona." Ajuntament De Barcelona. Accessed March 19, 2020. https://ajuntament.barcelona.cat/mercats/ca/content/mercats-lexperi%C3%A8ncia-de-barcelona-1.

Figure 10 shows that the number of stalls has drastically decreased during the last few years. However, the surface area of each stall has increased in order to offer more product variety to adapt to customers' preferences.

Taking the aggregate data shown in **Figures 9 and 10**, it can be observed that, on average, there has been an increase in the number of visitors per stall (see **Table 6**).

Figure 10. Number of Food Stalls



Source: Provided by IMMB.

Note: While the number of food stalls decreased, the average size of the stalls increased.

Table 6. Ratio of Visitors to Stalls

	No. of visitors	No. of stalls	Ratio of visitors to stalls
2010	61,604,702	1,984	31,051
2011	63,789,944	1,910	33,398
2012	58,729,126	1,876	31,306
2013	57,895,934	1,781	32,508
2014	62,881,085	1,779	35,346
2015	65,348,666	1,731	37,752
2016	66,815,394	1,667	40,081
2017	66,818,993	1,557	42,915
2018	68,075,001	1,472	46,247

Source: Prepared by the authors based on information provided by the IMMB.

Note: Although not verifiable, these ratios have been calculated with the (perhaps unrealistic) assumption that all visitors to the market visit both the supermarket and the stalls.

2.13. The Private Sector's Role in Barcelona's Markets

The food market system in Barcelona is structured as a public-private project. The city council, through the IMMB, provides the markets' infrastructure and management according to local regulations. The private stakeholders, jointly with the public sector, operate the food markets. Besides the private stallholders selling (mainly) perishable goods, around 25 out of the 39 markets in Barcelona have supermarket stores inside the food market facilities.

The role of the private sector in Barcelona's food markets is not new. On July 26, 1956, a new regulation that eased the construction and management of private markets was approved.²³ The idea behind the measure was the necessity to foster private investment to expand the network of food markets in a context of population growth, low tax revenues and limited public budgets.

The authorities therefore used the financial capacity of the private sector to reach the approved public policy goals.

2.14. Markets' Main Challenges in the 21st Century

While in the first half of the 20th century the markets were the main source to buy perishable food, by 2006 the percentage of the city of Barcelona's food basket bought in the food markets was only 29.3%.

Several reasons lie behind the drop in the share of food sales in the markets during the last few decades:

- The increase in new forms of retail, such as supermarkets (which sell both perishable and non-perishable products)
- A change in the consumption and life habits of city residents
- The decrease in the proportion of fresh products in the consumption basket in favor of processed food

The new forms of retail are spread throughout the city and are more flexible than markets in terms of opening hours, payment systems and the availability of product variety (besides fresh food they also have household products, such as soap, etc.).

In 1986, with the traditional retail stalls diminishing their role in the commercial life of the city, the Barcelona City Council passed the Special Commercial Plan for Food Facilities in Barcelona²⁴ (PECAB) to foster economic activity within neighborhoods through the remodeling of the food markets. The strategy proposed to use markets as elements to revitalize urban life.

A few years later, in 1991, the city council created the IMMB to operate, manage and renew the public markets to keep their centrality in the neighborhoods' social and cultural life. The IMMB's activity has been limited to renovating the existing markets but also includes creating new ones.

²³ AMAB, Actes municipals –ple, 26/7/1955, fol. 120v, i Actes Municipals – Ple, 28/4/1956, fol. 54. "Los mercados con los que actualmente contamos [...] son 24 y en relación con el millón y medio de habitantes que tienen Barcelona, resultan insuficientes para atender al vecindario ya que la proporción es inferior a la de un mercado por cada 50.000 habitantes, cuando una política sana de abastecimientos aconseja la adscripción de 20.000 almas como máximo [...]. Por ello [...] cabe resolver esta insuficiencia mediante los mercados de tipo particular, es decir, dando acceso y cauce a la iniciativa privada como elemento de colaboración en la actividad municipal."

²⁴ Ajuntament de Barcelona., Pla Especial d'equipament Comercial Alimentari de la Ciutat de Barcelona. (Special Plan for Food Facilities in Barcelona), Accord del Consell Plenari de 28-4-1999.

 $http://bismartopendata.blob.core.windows.net/opendata/opendata/VIGNETTE6_PECAB.952.PDF_pecab.952.pdf$

2.15 Strategic Plan: Markets as Public Services

Barcelona City Council developed the Strategic Plan 2015–2025²⁵ for food markets, whose objective is to renovate and modernize city markets to meet citizens' needs and social changes. The idea behind this renovation is that markets are drivers of local neighborhood economies.

The strategy points to different challenges that markets are currently facing:

- Economic challenges: it is necessary to design tools to increase consumption and market usage, especially in times of recession.
- Social challenges: markets must meet customer demands and generate life in their local neighborhoods.
- Technological challenges: markets need to embrace new technologies.
- Legal and administrative challenges: regulations need to be adapted to a changing reality.
- Environmental challenges: meet the growing demand for zero-kilometer products, establish best practices in waste management and supply chain management, etc.
- Policy challenges: meet the need to get buy-in in a timely fashion.

 $^{^{\}rm 25}$ IMMB (2014). A summary of the Strategic Plan can be find in **Exhibit 1**.



3. External Characteristics

The key external aspects of the project are described below, grouped into the following sections: economic conditions, economic structure, legislative context and regulations, and political conditions.

3.1. Barcelona Economic Conditions

Barcelona was hit hard by the Great Recession, as were many other cities in southern Europe, from 2009 (the year when the construction of the project started). Despite the unstable economic and financial conditions at country level, Barcelona managed to attract an increasing number of tourists, which partially compensated for the weak performance of the domestic economy.

The service sector gross domestic product (GDP) growth in Barcelona, particularly in retail, transport and hospitality, showed a more stable and smooth evolution than Barcelona GDP as a whole, as can be observed in **Figure 11**.

4
3
2
1
0
-1
2011
2012
2013
2014
2015
2016
2017
-2
-3
-4

Retail, transport and hospitality
GDP

Figure 11. Barcelona's GDP and Retail Growth (% YOY)

Source: El PIB de Barcelona 2017. Departament d'Anàlisi-GTP Oficina Municipal de Dades. Preus corrents. Base 2010.

The economic dynamism of the city allowed for an increase in the city council's budget (see **Figure 12**), despite the unfavorable international economic context.

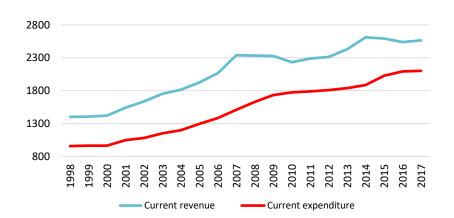


Figure 12. Barcelona City Council's Current Revenue/Expenditure

Source: "Evolució D'ingressos | Estratègia | Finances." Ajuntament De Barcelona. Accessed March 18, 2020. https://ajuntament.barcelona.cat/estrategiaifinances/ca/evoluci%C3%B3-ingressos.

3.2. Barcelona's Service Sector

Barcelona's economy is characterized by the importance of the service sector. Particularly relevant are services such as tourism, business services, transportation services, information sector services, technical and scientific services, health care, retail, arts, entertainment and recreation services.

While in 2011 the service sector represented 87.6% of the city's GDP, in 2017 its share reached 89.6%, an increase of 2% (see **Table 7**).

Table 7. Share of Economic Sectors in Barcelona's GDP (%)

	2011	2012	2013	2014	2015	2016	2017
Agriculture	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Industry	7.5	7.3	7.3	7.3	7.4	7.4	7.4
Construction	4.8	3.8	3.2	3.0	3.0	2.9	3.0
Services	87.6	88.9	89.5	89.6	89.5	89.6	89.6
Total	100	100	100	100	100	100	100

Source: El PIB de Barcelona 2017. Departament d'Anàlisi-GTP Oficina Municipal de Dades. Preus corrents. Base 2010.

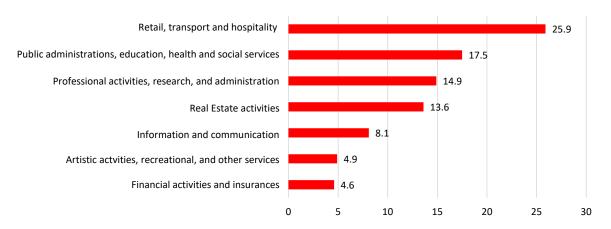
In Barcelona, the retail sector plays a leading role (see **Table 8** and **Figure 13**) not only in fostering economic growth and employment but also as a social cohesion instrument to reactivate neighborhoods, avoiding depopulation of certain areas.

Table 8. Share of Service Industries in Barcelona's GDP (%)

	2011	2012	2013	2014	2015	2016	2017
Retail, transport and hospitality	26.7	27.1	27.2	26.5	26.1	26	25.9
Information and communication	7.8	7.5	7.2	7.4	7.6	7.8	8.1
Financial activities and insurance	5.2	5.4	4.9	5.0	4.8	4.7	4.6
Real-estate activities	13.1	13.9	14.7	14.6	14	13.8	13.6
Professional activities, research and administration	12.3	12	12.2	13	13.6	14.4	14.9
Public administration, education, health and social services	17.3	17.7	18	17.9	18.2	17.9	17.5
Artistic activities, recreational and other services	5.3	5.3	5.1	5.2	5.1	5.0	4.9

Source: El PIB de Barcelona 2017. Departament d'Anàlisi-GTP Oficina Municipal de Dades. Preus corrents. Base 2010.

Figure 13. Share of Service Industries in Barcelona's GDP in 2017 (%)



Source: "Barcelona GDP 2017." Analysis Department - Municipality Data Office. Current prices. Base 2010, accessed April, 2019, https://ajuntament.barcelona.cat/economiatreball/sites/default/files/documents/El_PIB_BCN_2017.pdf

Regarding the retail food distribution sector, Barcelona's markets account for between 8% and 10% of retail sector sales (see **Table 9**).

Table 9. Barcelona City's Retail Sector

	Barcelona's business	Markets	% markets/ business
Contribution centres	16,429	2,656	16,2%
Establishments	35,000	3,128	8.94%
Workers (approx.)	75,000	7,500	10.0%
Turnover (thousands of euros)	9,750,000	990,347	10.2%
Commercial surface (m²)	3,833,529	109,500	2.85%
Food commercial surface (m²)	792,699	105,383	13.3%

Source: Provided by IMMB.

One central characteristic of the retail sector is how much the shopping experience is valued by customers. The food markets' main assets are the personalized services and good shopping experiences they offer customers.

3.3. Legal/Legislative Conditions

The main legal regulations that apply to the contract are the following:

- Law 7/1985, of April 2, 1985, regulating the Bases of Local Regime²⁶ (article 25.2.i, which defines that regulation of the food markets can be the responsibility of the municipalities if they so choose, but this is not compulsory)
- Ordenança Municipal de Mercats de Barcelona (November 28, 2008)
- PECAB, for planning commercial food stalls from 1986 and updated in 1999 to adjust to new consumption patterns
- City council public procurement regulations
- Legislative Decree 2/2003, of April 28, 2003, which approves the Consolidated Text of the Municipal Law and Local Government of Catalonia
- Municipality market regulations
- Legislative Royal Decree 3/2011, of November 14, 2011, approving the revised Public-Sector Contracts Law
- Royal Decree 1098/2001, dated 12 October, 2001, on approval of the general regulation of the act on contracts of the Public Bodies (RD1098/2001)
- Municipal proceedings

3.4. Political Conditions

The project construction started in 2009 (the first study was published in 2006) and the contract was awarded under the government of Mayor Jordi Hereu of the Social Democratic Party. Mayor Hereu led the local government from August 2006 to July 2011, when he was replaced by Xavier Trias from Convergence and Union (CiU), a centrist liberal nationalist alliance. Mayor Trias was the mayor under whom the new market was inaugurated (in May 2014). He held the position for four years, until June 2015.

Since June 2015, the mayor of Barcelona has been Ada Colau, the first female mayor in Barcelona, from the left-wing platform Barcelona en Comú (Barcelona in Common).

The changes of government had no effect on the contract performance or the market policy strategy, due to the stable institutional framework existing in Spain and the high consensus existing among political parties about food-market development policies.

²⁶ Law 27/2013, of December 27, 2013, on Rationalization and Sustainability of Local Administration.

4. Impact of the Project

The project has had a deep impact, predominantly on three areas: residents; administration; and stallholders and supermarkets.

4.1 Residents

The IMMB's goal in remodeling the municipal market was to strengthen the local economy, improve social cohesion in the neighborhood and foster shopping activity. The refurbishment project also included the creation of a pedestrian area around the market, with an additional investment of €1.15 million by the city council.

Those residents with real-estate properties near the newly remodeled market additionally benefited from an increase in their property value resulting from infrastructure improvement.

The new market had an underground area for the loading and unloading of the food and waste collection, which resulted in less noise for the neighbors and less public-space use by trucks. This new system improved neighbors' welfare by reducing noise and waste generation in the street.

Barcelona residents benefited from the refurbishment of the district infrastructure, which fostered shopping activity and increased the attractiveness of the area for residents from other areas.

4.2 Administration

The mission of the food markets in Barcelona is directly linked to the development of the city as a polycentric city. This city model attempts to decentralize the economic center and make city development more sustainable, based on reduction of mobility. The city council was willing to reach this goal by modernizing the old markets, adapting them to the current client needs.

By using a PPP model the city council benefited from an inflow of funds from the private sector, which partially financed the renovation of a central infrastructure for neighborhood development.



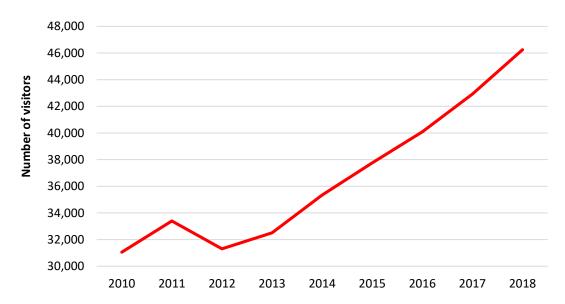
4.3 Stallholders and the Supermarket

Both the stallholders and the supermarket chain benefited from a store location with an increased attractiveness for customers and high visitor footfall in a building of historical interest.

Additionally, both benefited from the urban renovation in the surroundings of the food market, which made the area more attractive and therefore increased the number of potential customers.

As shown in **Figure 14**, the average number of visitors per stall increased, in part as a result of the supermarket opening, with positive effects, on average, on stall sales.

Figure 14. Average Number of Visitors per Stall



Source: Provided by IMMB.

5. Assessment

As for the structuring of the Sants food market as a PPP, this section looks at its most advantageous characteristics (namely, the investment by a private company) and those in which there are synergies between the public and private sector. We also analyze the impact of the project on the United Nations sustainable development goals (UNSDGs).

5.1 PPP Methodology

The case study of the renewal of the Mercat de Sants analyzes an original plan to involve a competitor to reinvigorate a public sector program, in this case the municipal food markets in the city of Barcelona (see **Table 10**).

The project consists of a substantial investment to reconstruct a large part of the structure of an old municipal food market, financed in part by using the proceeds of an auction to sell the rights to be located there to a modern supermarket chain.

The project is not exactly a PPP in a narrow sense of the term, because there was no bundling of construction with the other dimensions of the renovation program. The role of the supermarket chain, whose proceeds were used in part to renovate the food market, was to contribute funds and to be part of the food market building for the next 50 years. But the contract signed with the supermarket chain did not include the construction of the whole new infrastructure. Construction was carried out by separate construction companies that were not in a special purpose vehicle or consortium with the private sector operator whose funds were, in part, needed to finance the whole operation.

This is not to suggest that the supermarket chain should have participated in the construction stage of the project. Bundling of construction of the infrastructure and operation of the service makes sense when the operating consortium will use the whole infrastructure, but in this case the supermarket would only use a fraction of the renovated infrastructure.

Nevertheless, it is an interesting case of synergies between the public and the private sector. In a way, it is a PPP in a broader sense of the concept, because both public and private operators cooperate at a double level.

- First, there was an existing program of food markets in the city by which the city council led the management and promotion of the food markets (as it had been doing for decades and through a dedicated body since 1991) and small private operators managed the stalls that sold products.
- Second, the city council wanted to involve modern supermarket chains (the main competitor
 of traditional municipal food markets) to contribute funds to what was a public sector program,
 mostly financed with public funds, to renovate the food markets (the Sants case was not the only
 one along similar lines in the city), which had become a declining sector because of new competitors (supermarket chains among others), changing consumer habits and, probably, lack of supply
 dynamism.

It will be of great interest to see how the coexistence of a traditional food market with a supermarket evolves. Although it is true that they have many complementarities, as the case argues, they also sell substitute products. In addition, the more expanded opening hours of supermarkets may trigger different reactions from traditional food stalls. Perhaps some information about this could be gathered by policy makers from similar renovations in other food markets in the city that have already taken place.

A feature of this project that makes the PPP in a broad sense close to one in the narrow sense that the specialized literature in infrastructure projects usually considers is the use of a tender process to select the private operator, in this case the modern supermarket chain that would be involved in the reconstruction of the food market. However, it must be said that, in this case, only two private sector competitors participated in the bidding process, the project being correctly allocated to the one that offered more money to contribute to the renovation.

The IMMB, the institute responsible for market renovation, (as far as authors of the case study know) has not analyzed how the Mercat de Sants project interacts with the renovation program of the whole set of municipal markets in Barcelona. For example, there is the danger that if there are very few bidders in the tender process, these bidders may find it easy to collude to share the market by agreeing to bid aggressively in some projects and not in others, as if taking turns. This would be a negative effect of the interaction, but of course there could be positive effects, like the possibility to learn between projects or to create scope economies between different renovation projects.

As a conclusion, it must be said that it is a very interesting case of partnership between a new operator and the public sector, to reinvigorate a sector where the same body of the public sector (the municipality) was already cooperating with a declining competitor (the food market) of the new operator. The food markets and modern supermarket chains, as argued in the case, are complementary in some dimensions and act as substitutes in other dimensions, but the success (so far) of modern supermarket chains depends on combining the two dimensions and benefitting from the privileged location of traditional food market buildings to promote their brand.

It would also be interesting for the IMMB to try to learn from this case to apply learned lessons to future, similar experiences.



Table 10. Sants Food Market Project

	PPP Methodology	Existing	Details				
1. Bio	lding methodology						
1.1.	Cost-benefit analysis						
1.2	Value for money	No					
1.3	Real competition for the contract	Yes					
1.4	Proposal evaluation committee	Yes	Internal				
2. Co	ntract terms and incentives						
2.1	Bundling	No					
2.2	Verifiable quality of service	Yes	Quality and quantity				
2.3	Externalities	Yes	Positive				
2.4	Duration		50 years				
3. Ris	3. Risk, financing and payments						
3.1	Building and operational risk	Public	IMMB				
3.2	Demand risk (shops)	Public	IMMB				
3.3	Demand risk (customers)	Transferred	Stallholders				
3.4	Political and macroeconomic risk	Public	IMMB				
3.5	Payment mechanism	Opening ri	ights + rental fees				
3.6	Special purpose vehicle (SPV)	No					
4. Go	vernance						
4.1	Transparency	Yes	Particularly during building process				
4.2	Participatory decision-making process	Yes, through Stallholders Association					
4.3	Internal/external monitoring	Yes					
4.4	Specific legal framework for PPPs	No					
4.5	Distribution of tasks	Contracting authority	IMMB				
		Monitoring	IMMB				
		Renegotiation Regulation	IMMB City council				
		Operation and quality	IMMB				
5. Co	nstruction process						
5.1	Cost overruns	No					
5.2	Extending the building period	Yes					
6. Po	tential benefits						
6.1	Price certainty	No					
6.2	Transfer of responsibility to the private sector	Yes	Partially				
6.3	Incentives for innovation	Yes					
6.4	Savings on public spending		Not quantified				
6.5	Total infrastructure life cycle	No					
6.6	Incentives with respect to timing	Yes	Penalties for delays				

Source: Prepared by the authors.

5.2 United Nations Sustainable Development Goals

In order to be considered people-first PPPs, projects need to fulfill the following conditions²⁷:

- Increase people's access to essential services, especially for the socially and economically vulnerable; furthermore, people-first PPPs should promote social justice and make essential services accessible without restriction on any ground.
- Develop a resilient infrastructure and improve environmental sustainability, cutting carbon dioxide emissions and fostering green growth.
- Demonstrate project economic effectiveness; projects must be successful, achieve value for money and have a measurable impact by removing a barrier or creating new means for integrating groups into the global marketplace.
- Be replicable and scalable so that they can be scaled up and achieve the transformational impact required by the 2030 Agenda for Sustainable Development.
- Engage all the stakeholders that are either directly involved in the PPP project or directly or indirectly affected in the short run and/or long run.

The project was also aligned with some of the United Nations Sustainable Development Goals (UNSDGs) (see **Table 11**).

Table 11. United Nations Sustainable Development Goals

UNSDGs	Great impact	Moderate impact
1. No poverty		
2. Zero hunger		
3. Good health and well-being	✓	
4. Quality education		✓
5. Gender equality		
6. Clean water and sanitation		
7. Affordable and clean energy		✓
8. Decent work and economic growth	✓	
9. Industry, innovation and infrastructure		
10. Reduced inequalities		✓
11. Sustainable cities and communities	✓	
12. Responsible consumption and production	✓	
13. Climate action		
14. Life below water		
15. Life on land		
16. Peace, justice and strong institutions		
17. Partnership for the goals	✓	

Source: Prepared by the authors.

²⁷ ADEC Technology- BSD Web Development Team 2016. "What Are People-first PPPs?" UNECE International PPP Centre of Excellence-UNECE International PPP Centre of Excellence. Accessed March 19, 2020.

5.3 City Strategy

Here are five ways businesses can contribute to making cities more hospitable, functional and sustainable places to live and work, by²⁸:

- Identifying citizens' needs. If local citizens and firms are directly consulted about the future direction of local government policy, they are more likely to feel engaged in the city's development. And happier citizens make for happier cities.
- Tapping into the benefits of big data. If private and public actors work together to provide data sharing and openness, the city—and its residents—will reap considerable benefits.
- Capturing synergies and collective gains. By involving different actors in the decision-making process, valuable synergies can arise, as tasks and responsibilities are assigned to those best qualified to deal with them.
- Sharing their know-how and innovation. Private firms are specialized in particular fields in which they possess cutting-edge technology and expertise. Public authorities can benefit from the latest technological innovations available in the market and adopt more effective strategies to tackle urban problems.
- Mobilizing financial resources. Public budgets are facing ever-tighter constraints, particularly at
 the local level. Inviting private firms to help finance certain projects can help bring additional
 resources to bear on the development of essential projects without causing an immediate drain
 on public resources.

²⁸ Pascual Berrone, et al. "7 Forces to Success in PPPs: Smart Cities via Public-Private Partnerships," IESE Insight, no. 34 (Third Quarter 2017): https://www.ieseinsight.com/doc.aspx?id=2024&ar=5



6. Conclusions

The main goal of the IMMB is to consolidate food markets as key elements to foster local economic development and employment. In order to achieve this goal, IMMB designs and finances policies to renew and refurbish food markets. These markets have to provide Barcelona residents with quality products and promote a healthy lifestyle. This should result in an increase of living standards and social cohesion in Barcelona's neighborhoods.

The Mercat de Sants project consisted of remodeling an old and poorly maintained building and facilities to adapt it to new customer demands. The purpose of the renovation was to increase the competitiveness of the food market in relation to other retail channels, following a policy that the IMMB started in 1998, when a supermarket was first opened inside market facilities, specifically in the Mercat de la Concepció. The supermarket in the Mercat de Sants should help attract new customers and partially finance the cost of building refurbishment (it having paid €3 million for opening rights out of the total renovation cost of €9.8 million). The supermarket chain additionally pays around €15,000 per month in rental and maintenance fees, therefore reducing the maintenance cost for the other market stallholders. The public savings derived from payments from the private sector in the project could be used to implement other public policies.

This project provides interesting insights that can be used by public authorities when looking for policies to promote local development, financial support or fostering competition among same-sector firms. Regarding the last issue, of special interest is the capacity to bring together different stakeholders of different sizes (small and medium-sized enterprises [SMEs] and a large supermarket firm) and different goals in the same project.

From our point of view, the key element of this triple alliance is that each stakeholder has been in charge of duties related to their own capacities and interests: the IMMB was in charge of the refurbishment and the related investment; the supermarket firm participated in the finance of the refurbishment and the stallholders paid rent and financed the maintenance (cleaning and security) costs.

Despite the positive impact that the refurbishment had on the neighborhood in terms of number of visitors, a rigorous assessment of the project cannot be carried out due to the lack of detailed data between 2011 and 2016 and the lack of an ex post cost-benefit analysis. Additionally, the data, when available, does not provide detailed information about the number of users that only visited the supermarket or how many new customers the project created. This should be considered necessary information to guarantee that good use has been made of public funds.

Overall, the project reached its goals of promoting Sants neighborhood's economy and social life.

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Exhibit 1

The strategy includes three main areas: soul, motos, and sustainability.

These ones are broken down into 12 goals listed below that needs to be developed over the next ten years.

1. Soul (S)

Markets are a benchmark for life in Barcelona. They provide an experience not only when shopping but also in quality of life.

- S.1: Consolidate market's as a central part of neighborhoods
- S.2: Keep on transforming neighborhoods via market renovation.
- S.3: Strengthen the commitment of traders to the market and the network
- S.4: Strengthening the relationship market-local trade

2. Motor (M)

Market retailing leads each neighborhood and is a model of international planning. Markets are a key factor in economic development and job creation in each district.

- M.1: Leading the distribution of fresh food in the city of Barcelona
 - M.1.1: Positioning itself as the principal place to purchase fresh produce, from the point of view of quality, variety and price.
 - M.1.2: Enhance service quality through personalization and customer service.
- M.2: Continue to lead a management model for municipal urban markets
 - M.2.1: Maintain and innovate a management model for public-private development of markets.
- M.3: Promoting a model of sustainable management market
- M.4: Keep targeting consumers

3. Sustainability (S)

Markets are synonymous with social values associated with sustainability, environmental and cultural.

- S.1: Promotes markets as a source of Catalan food heritage
- · S.2: Position markets as a place for training on healthy eating habits, food and food security
- S.3: To ensure the economic and environmental sustainability of the equipment markets
- S.4: Strengthen the market as a defender of social sustainability in the neighborhood

Exhibit 2. Barcelona's Food Markets

	Food	Year of	Last	Supermarket	Supermarket
District	market	construction	renovated	surface area (m²)	chain
Ciutat Vella				1,383	
	Barceloneta	1887	2007	964	Caprabo
	Boqueria	1914	2002	0	N/A
	Santa Caterina	1848	2005	419	Caprabo
Eixample				6,611	
	Concepció	1888	2009	1,099	Caprabo
	Fort Pienc	2003		1,290	Mercadona
	Ninot	1933	2015	1,519	Mercadona
	Sagrada Família	1944	2002	700	Caprabo
	Sant Antoni	1882	2009	2,003	Lidl
Sants-Montjuïc				3,496	
	Hostafrancs	1888	2003	653	Supercor
	Marina	2003	2003	493	Bon Preu
	Sants	1913	2014	2,350	Mercadona
Les Corts					
	Les Corts	1961	2008	490	Superestalvi
Sarrià-				585	
Sant Gervasi	Galvany	1926	1999	0	N/A
	Sant Gervasi	1968	2002	355	CasaAmetller
	Sarrià	1911	2007	230	Superestalvi
	Tres Torres	1958	1998	0	N/A
Gràcia					
	Abaceria (under renovation)	1892	2002	1,295	N/A
	Estrella	1957	2007		N/A
	Lesseps	1974	1999	595	Caprabo
	Llibertat	1888	1888	700	Bon Preu
Horta-Guinardó				2,634	
	Carmel	1969	1999	0	N/A
	Guinardó	1954	2014	1,335	Carrefour
	Horta	1951	1998	0	N/A
	Vall d'Hebron (en obres)	1969	2019	1,299	Lidl

	Food	Year of	Last	Supermarket	Supermarket
District	market	construction	renovated	surface area (m²)	chain
Nou Barris				2,571	
	Canyelles	1987	1999	229	Caprabo
	Ciutat Meridiana	1968	2001	532	Sorli Discau
	Guineueta	1965	2013	1,200	Mercadona
	Mercè	1961	1999	0	N/A
	Montserrat	1960	1997	0	N/A
	Núria	1966	1998	400	Charter
	Trinitat	1970	2019	610	Consum
Sant Andreu				1,482	
	Bon Pastor (under renovation)	1961	2009	1,482	Lidl
	Felip II	1966	2002	500	Caprabo
	Sant Andreu (en obres)	1914	1999	0	N/A
Sant Martí				3,882	
	Besòs	1968	1990	0	N/A
	Clot	1889	1995	201	Superestalvi
	Provençals	1974	2013	1,699	Carrefour
	Sant Martí	1966	2003	470	Alcampo
	Unió-Poblenou	1889	2005	1,512	Mercadona
TOTAL	39 markets (and 1 wholesale market)			24,929	25 supermarkets

Source: Provided by IMMB. Mercats d'alimentació per districtes. 2019.

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